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Increasing Faculty Research Productivity via a Triple-Helix Modeled University Outreach Project: Empirical Evidence from Thailand

Suteera Chanthes*

*Mahasarakham Business School, Mahasarakham Univeristy, Mahasarakham 44150, Thailand

Abstract

This paper presents empirical evidence from Thailand on faculty research productive increased via a triple-helix modeled university outreach project. It is evidenced that faculty research productivity of Thai faculty members could be raised as these faculty staff participate in such collaborative project based on a triple-helix model of government-university-industry relations. The increased productivity is evidenced by the development of research interests of junior and senior staff, the implementation of academic research as a direct contribution to social and economic development and the emerged and sustained linkage of outreach activities participated by the government, the university and the industrial partners. Despite these findings, the paper also discusses another aspect of the findings regarding the research productivity that there is the lack of academia knowledge commercialization, which is widely recognized as desirable quality of academic research produced recently. Given the research findings, this paper therefore discusses the way in which academia taking part in the triple helix relation is able to put in economic, in addition to its academic, value to the knowledge gained.

Keywords: Triple Helix; Research Productivity; Knowledge Commercialization; Univeristy Outreach; Thailand

1. Introduction

Internationally known as the founders of the triple helix model, Etzkowitz and Leydesdorff account the term as government-university-industry relations [1]. By acknowledging a vital role of university in the model, they assert that the university can play an enhanced role in innovation in increasingly knowledge-based societies. The

* Corresponding author. Tel.: +66-43-754321 Extn 3422; fax: +66-43-754422.
E-mail address: suteera.c@acc.msu.ac.th

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model is widely recognized as a derivative of innovative systems to foster the making use of academic discoveries in the development of the society and economy. In this sense, the model is claimed to deliver a systematic knowledge transfer underpinned by the support of the three parties of government, university and industry [2]. With regard to this scheme, researchers in countries around the world therefore study the implementation of the notion in a diverse range of contexts, both developed and developing.

In Thailand, triple helix relations are also implemented in a number of collaborative projects aiming at the transfer of knowledge and innovations [3-5]. However, as pointed out by Yokakul and Zawdie [4], there is still the risk that the 'developing country syndrome' which they refer to the lack of policy enthusiasm at the centre claimed to run out of steam at the operational level. Agreeing with this, Intarakamnerd and Chaminade [6] and Worasinchai et al [3] affirm that, developing system such as Thailand, systematic forms of collaboration at the operational level is as important as that at the central level. With respect to this, the observation of research productivity given the implementation of the model as well as the effectiveness of academic participation is to be placed in the central focus.

By focusing on the academic part, the role of faculty participating in the university collaborations with industries under the government supports requires a reconsideration of classical faculty roles. Cortés-Aldana et al [7] regard academic work as "teaching, research and direct contribution to social and economic development". By looking at the research function of faculty members as they deliver a contribution to social and economic development, faculty research productivity is in the central focus of this paper.

Chanthes et al [8] study the roles of faculty members, both faculty staff and senior managers, in a triple-helix modeled outreach project at a Thai public university. They find that, according to the decentralization of the university's organizational structure, the Dean of the faculty is expected to play a mediator role in outreach projects; in such outreach projects, this middle-level manager is expected to promote a linkage between the parties, senior management of the university, government authorizes and industrial partners, and the members of academic staff. While doing so, the Dean is also expected to plan the departmental productivity and function in relation to the capabilities of faculty staff for such projects [9]. However, in practice, the mediator role of the Dean alone cannot reconcile diverse expectations of university members at different levels of the university organization. Concerning the literature to date, while looking at the work of faculty staff, this paper also takes into account actions and perspectives of all stakeholders, both within and outside the university organization, in relations to the faculty research productivity observed.

Given the background to the research above, this paper delivers findings of the observation of faculty work and discusses the way in which their research productivity is empirically increased as a result of their participations in the triple-helix modeled project observed. With respect to the context of such developing system, this discussions delivered is also aimed at making a contributions to the knowledge in terms of its applications in a wider extent.

2. Research Methodology

The empirical setting of a paricipatory action research underpining the presentation of this paper prsents the . character of the triple helix model; it observes the research productivity of faculty members of Mahasarakham Buisness School of Manasarakham Univeristy in Thailand while they were taking part in a collaborative project with the National Economic and Social Advisory Council of Thailand (NESAC) and the Federation of Thai Industries (FTI). The project was carried out in accord with the national plan to develop Thai-Lao eceonomic partm\nership within the ASEAN Ecoomic Comminity (AEC) context, coming in 2015. The primary objective of the observed project is to investigfate the needs or Thai industires concerning their preperation for the coming of the AEC, which the economies of ASEAN (the Associations of Southeast Asian Nations) countries are to be merged into a single economy sharing markets and resources of the region. The outcome of the project is to

deliver a study of industrial needs in support for the NESAC giving its advice on the national strategic plan for industrial preperations proposed to the Council of Ministers.

The project began in June 2010. With respect to the university reputation as well as its location in the North-east of Thailand close to the country's border with Lao PDR, the NESAC asked Mahasarakham Business School (MBS) of Mahasarakham University to take part in a project soon to become a roadmap for Thai-Lao cross-border economics development titled "The Development of Strategic Approach to the Building of Thai-Lao Economic Partnership". The role of MBS faculty was to investigate the needs of firms, who were members of FTI, given the context of the upcoming AEC.

The author of this paper together with eight faculty staff participated in this12-month project, beginning in June 2010 and ending in May 2011. While working for the project, the author also observed actions, ideas and research productivity of her colleagues, as well as the perceptions of the MBS Dean, the University Chairman, two senior managers of the FTI and five members of the NESAC. Interviews were carried out throughout the project. Also, a range of government and institutional documents was analyzed as supplementary source of research data. A grounded theory approach was employed as the data analysis tool.

3. Research Findings and Interpretations

The primary objective of the triple helix modeled of the project forming the empirical setting of the action research was fulfilled. That is, with the collaboration of the three agents, university-industry-government, namely MBS-FTI-NESAC, the proposed strategic plan titled "The Development of Strategic Approach to the Building of Thai-Lao Economic Partnership" was accepted by the Council of Ministers in July 2011. The plan has been acknowledge by the Council of Ministry as a potential strategic roadmap for Thai-Laos borderline provinces since October 2011. Utilized as a supporting reports, the research findings underpinned the advice to the government regarding various concerns arisen from industries, both beneficially and negatively, affected by the context of AEC. Along with the success of the project, various aspects in regard to the performance of academic participation in the project were emerged, including the increased research productivity of faculty staff, the sustainability of the government-university-industry relationships and the lack of knowledge commercialization developed through academic work.

3.1. The Lack of Knowledge Commercialization

Faculty staff in Thailand are responsible for four main tasks namely teaching, research , academic service and the promotion of artistic and cultural affairs [10]. The performance of these tasks are to be evaluated using difference criteria and weighting in accordance with the term of reference of their positions at the university. At Mahasarakham Business School, the highest weight is given to teaching, for 60%, 30% for research and academics service gains about 5%, which is equal to the promotion of artistic and cultural affairs. Concerning the low weighting for academics service, research findings point out that outreach activities are seen be faculty staff as low in terms of its important to their career. Furthermore, participations in such activities are time consuming and inter-personal skills requiring, in addition to the academic expertise of the staff. Also, regarding a wide range of activities due to the characteristics of the task itself, the evaluation criteria set by the university, such as outside grant given to the project, number of participants of such projects and the level of their satisfaction on the participations are claimed to be difficult to assess. This could be seen as the problem of lacking systematic framework and workflow that affects academic awarding system placing an obstacle to the promotion of academic participations in the university outreach [4, 6, 9].

The problems reported by the findings is known as an elements of "developing country syndrome" where the lack of horizontal system work (central level-university-faculty staff and departmental level) could out away academic incentives in outreach[4]. Despite the perspectives of the staff reported, the Dean's perspectives is presented differently; the Dean claims that although academic service is weighted a little, the core incentive of staff participating in such outreach is actually not only to meet the evaluation criteria but also other benefits to academic career such as research outcomes and income generation. The Dean's idea is based on the character of autonomous and entrepreneurial research universities often found in universities in developed systems [1, 7, 11, 12] and top public universities in Thailand [3, 10, 13]. Therefore, this findings evidence the difference in perspectives of the management and the staff at operational level based on the lack of research-university characters of the organization itself. This is considered as the missing basis for high research performance required to generate economic value of the knowledge transfer from university to private sector as well as the ability of staff to utilize their research performance to benefit their teaching [7, 14, 15]. For this reason, staff at the observed organization therefore lack of strategic plans for making use of service activities to promote their career, which teaching and research form the majority of their function in the organization.

3.2. Sustainability of the Government-University-Industry Relationships

Despite the difference perspectives between the management and staff at the operational level reading the commercialization of knowledge generated through outreach activities, the university management expressed their understanding of the lack of research basis at their institution. Such outreach projects are therefore funded by the university itself. Furthermore, as evidenced in this research, the government body such as the National Economic and Social Advisory Board play the most important part in funding such project linking the knowledge service from the university and the making use of it in a wide range of industries in private sector. The work of staff at the operational level in the project is therefore not quite struggled in terms of supports for the operation of the project itself. However, the lack of incentives for participating staff, both academic and personal economic terms, is seen as an obstruction. Nonetheless, regarding the success of the initiative, organizational linkages between the university-government body (NESAC) as well as the university-industry (FTI) is developed.

Following the NESAC proposing its advice to the Council of Ministers, needs and problems of industrial sector emerged from through the investigation in diverse areas remain in the interest of both faculty staff and the university; these needs and problems require the service of further knowledge regarding the advice directly acknowledged by the policy makers of the country [16]. The NESAC, the University and the FTI therefore decide to remain their relationships by developing some commitment though research projects and the promotion of service centre hosted by the university.

In order to sustain the relationships, two participating staff from Mahasarakham University have been appointed as the Advisor to the NESAC and one of them has become a National Economic and Social Advisory Committee where some other committees are from the FTI. Additionally, the University and the FTI have agreed to have a Memorandum of Understanding (MOU) between the two organizations to mutually develop a systematic framework for further collaborations between the two organizations, which well planned objectives and financial planning have been in place to prolong the relations.

3.3. Increased Research Productivity of Faculty Staff

In order to accomplish the project, all participating staff had to form a diverse range of research questions and carried out an observation to solve the problems in accordance to their areas of expertise, which include finance, economics, accounting, management and international business administration. Following the success of the project, two junior members of staff developed research proposals and applied for grants from various sources including NESAC and FTI. Accounted since October 2011, two success proposals got grants from the NESAC

while the other two projects got funding from the FTI. In addition, another proposal has already been developed and submitted to the National Research Council. This is considers as a performance indicator of increased research productivity of faculty participation in this collaborative project.

4. Conclusions, Policy Implications and Directions for Further Research

The research findings show various aspects of increased research productivity via collaborative project of the three agents of the triple helix model namely academic industry and government. The increased productive is evidenced by the development of research interests of junior and senior faculty staff, the implementation of academic research as direct contribution to social and economic development and the emerged linked of research interest between academia and industry.

Despite the increased research productivity reported, it was developed following a classical approach for Thai academic research. The approach basically starts with a research questions raised to academia followed by proposal development aiming at the success of getting a research grant, primarily from government agents. After that, research data was to be collected from the industry followed by a research report to be delivered.

Given the empirical evidence, there is a lack of academia knowledge commercialization; it is desirable that academia in the triple helix model is able to commercialize its contribution to the knowledge to gain economic, in addition to the academic, values. Further research is therefore recommended to investigate the way in which academia, particularly in developing settings, develop their research productivity with respect to the knowledge commercialization.

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